CLAIMS:

1. A tube member for use in a connection device joining pre-cast concrete panels or forms, said tube member comprising an integral elongate, imperforate, and hollow tubular body of a smoothly curved generally non-cylindrical cross-section having a first closed end and a second end, an outer wall including concrete-engaging circumferential corrugations propagating along the length of said body, an inner wall including grout-engaging circumferential corrugations propagating along the length of said body, form attachment means at said second end of said body for removably securing said body to a panel casting form; and a transparent seal member secured to said second end of said body, said seal member overlying and closing said second end of said body.

2. The tube member of Claim 1 wherein said outer wall corrugations are smoothly rounded with a large radius curvature and said inner wall corrugations are smoothly rounded with a large radius curvature.

3. The tube member of Claim 2, wherein the outside of said first closed end of said body is smoothly rounded and integrated with said smoothly rounded outer wall corrugations and the inside of said first closed end of said body is smoothly rounded and integrated with said smoothly rounded inner wall corrugations.

4. The tube member of Claim 1, wherein said form attachment means comprises a circumferential flange integral with said body, said flange extending radially outwardly from said body at said second end.

5. The tube member of Claim 4, wherein said circumferential flange includes a plurality of tear-away tabs for securing said tube member to the panel casting form, said tear-away tabs being capable of breaking off from said flange when the panel casting form is removed after the

pre-cast concrete panel has set, leaving said body of said tube member embedded in the concrete panel with said flange of said second end flush with the side of the concrete panel.

6. The tube member of Claim 1, wherein said transparent seal member comprises a waterproof transparent sheet and a waterproof joint securing said sheet to the top of said form attachment means.

7. The tube member of Claim 1, wherein said body is formed from a seam-free plastic tube of generally ovalized cross-section, the wall of said body having circumferential corrugations propagating along the length thereof forming said concrete-engaging outer wall and said grout-engaging inner wall, said first end being seam-free, smoothly rounded, and integral with said wall, said form attachment means comprising an outwardly extending circumferential flange integral with said body, said seal member being secured to said flange.

8. The tube member of Claim 7, wherein said seal is integral with said body.

9. The tube member of Claim 7, wherein said flange includes a plurality of tear-away tabs for securing said tube member to the panel casting form, said tear-away tabs being capable of breaking off from said flange when the panel casting form is removed after the pre-cast concrete panel has set, leaving said body of said tube member embedded in the concrete panel with said flange of said second end flush with the side of the concrete panel.

10. The tube member of Claim 1, wherein said body is molded from an integral mass of thermoplastic resin into a tube of generally ovalized cross-section, the wall of said body having circumferential corrugations propagating along the length thereof forming said concrete-engaging outer wall and said grout-engaging inner wall, said first end being smoothly rounded and integral with said wall, said form attachment means comprising an outwardly extending circumferential flange integral with said body, said seal member being secured to said flange.

11. The tube member of Claim 10, wherein said seal is integral with said body.

12. The tube member of Claim 10, wherein said flange includes a plurality of tear-away tabs for securing said tube member to the panel casting form, said tear-away tabs being capable of breaking off from said flange when the panel casting form is removed after the pre-cast concrete panel has set, leaving said body of said tube member embedded in the concrete panel with said flange of said second end flush with the side of the concrete panel.

13. A tube member for use in a connection device joining pre-cast concrete panels or forms, said tube member comprising an integral elongate, imperforate, and hollow tubular body of a smoothly curved generally non-cylindrical cross-section having opposite ends, a transparent wall sealed to one end of said body to overlie the interior of said body and close said one end, such wall, when ruptured or removed, permitting filling of the interior of said body with grout and insertion of a reinforcing bar into the grout within the interior of said body for forming a connection therewith, an outer wall including concrete-engaging circumferential corrugations propagating along the length of said body, an inner wall including grout-engaging circumferential corrugations propagating along the length of said body, and form-attachment means at said one closed end of said body for removably securing said body to a panel casting form.

14. The tube member of Claim 13, wherein the other end of said body is closed, the outside of said other closed end being smoothly rounded and integrated with said outer wall corrugations and the inside of said other closed end being smoothly rounded and integrated with said inner wall corrugations.

15. The tube member of Claim 13, wherein said form attachment means comprises a circumferential flange integral with said body, said flange extending radially outwardly from said body at said one end.

16. The tube member of Claim 13, wherein said body comprises an integral mass of thermoplastic resin.

17. The tube member of Claim 15, wherein said flange includes a plurality of tear-away tabs for securing said tube member to the panel casting form, said tear-away tabs being capable of breaking off from said flange when the panel casting form is removed after the pre-cast concrete panel has set, leaving said body of said tube member embedded in the concrete panel with said flange of said one closed end flush with the side of the concrete panel.

18. A structure comprising a lower pre-cast concrete member, an upper pre-cast concrete member resting on top of the lower concrete member, and a connection device joining the members together, said connection device including an integral elongate, imperforate, and hollow tubular plastic body of a smoothly curved generally non-cylindrical cross-section embedded in the top of the lower concrete member with said body having a top open end facing the upper member, a bottom end facing away from the upper member, an outer wall including concrete-engaging circumferential corrugations propagating along the length of said body, an inner wall including grout-engaging circumferential corrugations propagating along the length of said body; concrete in the lower member extending into said concrete-engaging corrugations; grout filling the interior of said body and extending into said grout-engaging corrugations; a rod embedded in the upper member, said rod extending downwardly through said top open end of said body and into the grout in the interior of said body to form a connection therewith; and an opened transparent seal at said top end of said body surrounding said rod.

19. The structure of Claim 18, wherein said bottom end of said body is closed, the outside of said bottom closed end being smoothly rounded and integrated with said outer wall corrugations and the inside of said other bottom closed end being smoothly rounded and integrated with said inner wall corrugations.

20. The structure of Claim 18, wherein said body further includes an integral circumferential flange extending radially outwardly from said body at said top open end.